

IN THE CLAIMS:

1. (previously presented) A method of producing a modified fiber product selected from printing paper and packaging material, according to which method

- cellulosic raw material is formed into a fiber suspension,
- components modifying the properties of fibers are added to the fiber suspension and
- the fiber material is introduced to a paper machine and formed into a web,

characterized in that

- an alkyl derivative of cellulose selected from alkali soluble carboxymethyl cellulose, the DS of which is 0.1 to 0.4 and the polymerization degree of which is about 600-5000, is dissolved in an alkaline solution and then mixed into the fiber suspension at alkaline conditions, and
- the derivative is allowed to be bonded to the fibrous raw material prior to the fibrous material being formed into a web so that the bonded cellulose derivative can not be washed off with water,

to produce a modified fiber product having strength suitable for printing paper and packaging material.

2-4. (cancelled)

5. (previously presented) A method according to claim 1, characterized in that the alkali soluble carboxymethyl cellulose is allowed to be sorbed to the cellulose from the water phase so that at least 10% of the derivative contained by the water phase is allowed to be sorbed to the cellulose.

6. (previously presented) A method according to claim 1, characterized in that the pH value of the pulp is more than 8.

7. (previously presented) A method according to claim 1, characterized in that the pulp is mixed with the alkali soluble carboxymethyl cellulose for at least 5 minutes before drying.

8-9. (cancelled)

10. (previously presented) A method according to claim 8, characterized in that the DS of the alkali soluble carboxymethyl cellulose is 0.2-0.4.

11. (cancelled)

12. (previously presented) A method according to claim 1, characterized in that about 10 %, at the most, of the alkali soluble carboxymethyl cellulose can be washed off the treated fibrous raw material at a temperature of 25 C and a neutral pH value.

13. (previously presented) A method according to claim 1, characterized in that in comparison with untreated paper, the same internal bond strength is achieved while using at least 10 % less pulp.

14. (previously presented) A method according to claim 1, characterized in that the alkali soluble carboxymethyl cellulose is contacted with the cellulose fibers in an alkaline flow of a pulp or paper mill.

15. (previously presented) A method according to claim 14, characterized in that the alkali soluble carboxymethyl cellulose is contacted with the cellulose fibers in an alkaline bleaching stage.

16. (previously presented) A method according to claim 15, characterized in that the alkali soluble carboxymethyl cellulose is contacted with the cellulose fibers in the peroxide bleaching of mechanical pulp.

17. (previously presented) A method according to claim 16, characterized in that the alkali soluble carboxymethyl cellulose is first contacted with chemical pulp, subsequent to which the pulp is drained and the filtrate is introduced to the peroxide bleaching of mechanical pulp.

18. (previously presented) A method according to claim 14, characterized in that the alkali soluble carboxymethyl cellulose is mixed with the cellulose fibers subsequent to the beating of fibers.

19. (previously presented) A method according to claim 1, characterized in that the web forming is performed without an

intermediate drying of pulp after sorption of the alkali soluble carboxymethyl cellulose.

20. (previously presented) A method according to claim 1, characterized in that the amount of alkali soluble carboxymethyl cellulose is 0.1 to 5 % by weight of the cellulose fibers.

21. (canceled)

22. (previously presented) A method according to claim 1, characterized in that the alkali soluble carboxymethyl cellulose is allowed to be sorbed to the cellulose from the water phase so that at least 20% of the alkali soluble carboxymethyl cellulose contained by the water phase is allowed to be sorbed to the cellulose.

23. (previously presented) A method according to claim 1, characterized in that the alkali soluble carboxymethyl cellulose is allowed to be sorbed to the cellulose from the water phase so that at least 30% of the alkali soluble carboxymethyl cellulose contained by the water phase is allowed to be sorbed to the cellulose.

24. (previously presented) A method according to claim 1, characterized in that the pH value of the pulp is more than 10.

25. (previously presented) A method according to claim 1, characterized in that the pulp is mixed with the alkali soluble carboxymethyl cellulose for at least 10 minutes before drying.

26. (previously presented) A method according to claim 1, characterized in that the pulp is mixed with the alkali soluble carboxymethyl cellulose for at least 20 minutes before drying.

27. (currently amended) The method according to ~~claim 27~~ claim 1, wherein the alkali soluble carboxymethyl cellulose is bonded to the fibers at a pH of about 7 to 10.

28. (previously presented) The method according to claim 1, wherein the treated pulp is filtered and washed subsequent to sorption, before introducing the pulp to the paper machine.